

What is claimed is:

1. A method of producing a phenol novolak resin having an ortho ratio of 30% or more according to the following method

(1) or (2):

(1) a method of reacting a phenol and an aldehyde using an oxalic acid catalyst at 110 to 160°C under pressure;

(2) a method of reacting a phenol and an aldehyde under pressure while removing the heat of reaction by a condenser with controlling a pressure so that water or an organic solvent present in the reaction system is refluxed.

2. The method of producing a phenol novolak resin according to Claim 1 wherein the aldehyde is formaldehyde.

3. The method of producing a phenol novolak resin according to Claim 1 wherein the phenol is ortho-cresol.

4. The method of producing a phenol novolak resin according to any one of Claims 1 to 3 wherein the ortho ratio of the phenol novolak resin is from 30 to 60%.

5. A method of producing a phenol novolak resin having an ortho ratio of 30% or more wherein a crude phenol novolak resin having an ortho ratio of less than 30% is heated at 110 to 180°C in the presence of a strong acidic catalyst.

6. The method of producing a phenol novolak resin according to Claim 5 wherein the strong acidic catalyst is sulfuric acid, benzenesulfonic acid or toluenesulfonic acid.

7. The method of producing a phenol novolak resin according

to Claim 5 wherein the phenol novolak resin is an ortho-cresol novolak resin.

8. The method of producing a phenol novolak resin according to any one of Claims 5 to 7 wherein the ortho ratio is from 30% to 50%.

9. A method of improving the ortho ratio of a phenol novolak resin wherein a crude phenol novolak resin is heated at 110 to 180°C in the presence of a strong acidic catalyst.